

Water Conservation and Local Water Supply Plans

Governor's Forum on Drought and Water
Conservation

02 June 2008



Background on the Regulation

- SB1221- enacted by the General Assembly in 2003 - required DEQ to develop criteria for local and regional planning and a preliminary state water resources plan.
- State Water Control Board adopted final regulation June 28, 2005.
- All counties, cities and towns will submit a plan to the board, individually or as part of a region.

Important Dates

- Population-based deadlines
 - Greater than 35,000 = November 2, 2008
 - 15,000 to 35,000 = November 2, 2009
 - Less than 15,000 = November 2, 2010
 - Regional with LOI = November 2, 2011
- Letter of Intent (LOI) to regionalize due by November 2, 2008
- Localities to review their plans every five years to assess adequacy. Updates required every 10 years.

Required Elements

- A description of existing water sources;
- A description of existing water use;
- An assessment of projected water demand;
- A statement of future need;
- An analysis that identifies potential alternatives to address projected deficits in supplies;
- A description of existing water resource conditions;
- A description of water demand management actions;
- A drought contingency and response plan.

Water Demand Management: **Purpose**

- As part of a long-term strategy, a water plan shall address conservation as a part of overall water demand management

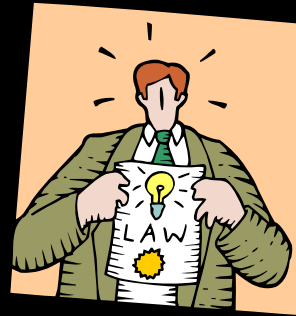
Information Categories

- Efficient water use practices
- Water conservation measures
- Water loss reduction practices

Efficient Water Use

Practices for more efficient use of water:

- *Adoption and enforcement of Va. Uniform Statewide Building Code sections regarding low flow fixtures & appliances*
- *Low – water use landscaping*
- *Increases in irrigation efficiency*
- *Become a WaterSense Partner*



Efficient Water Use

EPA's WaterSenseSM Program:

- Protect the future of our water supply by promoting & enhancing the market for water-efficient products, services & practices.
- Spread the word about these products, services & practices!
- Become a partner!



Water Conservation Measures

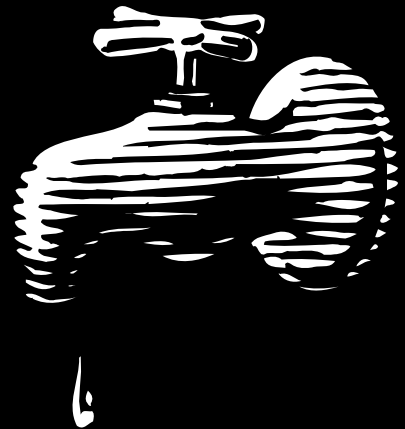
Measures used to conserve water through the reduction of use:

- *Technical*
- *Educational*
- *Financial*

Water Loss Reduction

Practices to address water loss in the maintenance of water systems to reduce unaccounted for water loss:

- *Leak detection and repair*
- *Old distribution line repair or replacement*



Summary

- Long-term water demand management strategy
- Consider conservation practices in water demand projections (9 VAC 25-780-100D)
- Water is a limited resource:
Sustain current and future water

Governor Kaine's Release

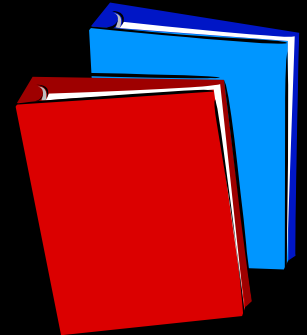
November 7, 2007:

- The Governor urged localities to update water conservation and drought contingency ordinances and plans and begin preparations to implement those plans.
- The Governor also encouraged citizens and businesses to strictly follow all calls for water conservation issued by public waterworks or local governments.



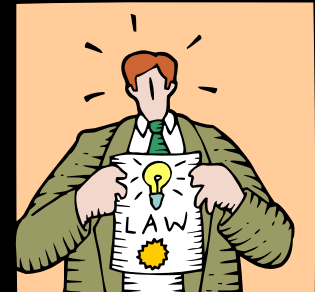
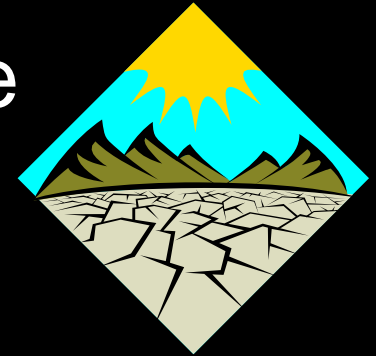
The Water Supply Planning Regulation states:

“A program that includes community water systems and self-supplied users who withdraw more than an average of 300,000 gallons per month of surface water and ground water **shall** contain drought response and contingency plans. “



Drought Response & Contingency Plan: **PURPOSE**

- Address unique water source characteristics & beneficial uses
- Designate drought onset response stages
 - Triggers & conservation measures
- Describe implementation procedures



Drought Response & Contingency Plans

“...shall be structured to address the **unique characteristics of the water source** that is being utilized and the nature of **the beneficial use of water.**”



Drought Response & Contingency Plans

“...shall contain, at a minimum, the following **three graduated stages** of responses to the onset of drought conditions:”



Drought Response & Contingency Plans

Drought Response Stages

Drought Watch

- Drought conditions are likely
- Increase public awareness & outreach
- *GOAL*: prepare public for potential drought conditions & necessary response



Drought Response & Contingency Plan:

Drought Response Stages

Drought Warning

- Significant drought is imminent
- Voluntary water conservation measures
- *GOAL*: reduce water use by 5 – 10%



Drought Response & Contingency Plan:

Drought Response Stages

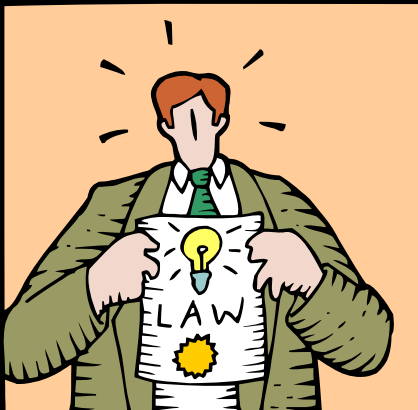
Drought Emergency

- Significant drought event is occurring
- Mandatory water conservation measures
- *GOAL*: reduce water use by 10 – 15%



Drought Response & Contingency Plans

“...shall include references to local ordinances, if adopted, and procedures for the implementation and enforcement of drought response and contingency plans.”



Tips for Building Your Drought Plan

- Develop local triggers and response plan to address your sources
- Identify what water uses to restrict
- Establish a community advisory body to make recommendations regarding actions that should be taken and when
- Establish summer surcharge if appropriate
- Focus resources on public education

How DEQ Can Help You



- Help you develop local triggers and response plan as part of your required Water Supply Program
- Complete and post real-time, local scale information that can be accessed on the WSP Website
- Continue to fund development and distribution of data and management tools

Virginia DEQ - Water Supply Planning Program - Microsoft Internet Explorer

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Address <http://www.deq.virginia.gov/watersupplyplanning/drought/state/current.html> Go Links

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State Water Plan

Program Assistance Resources

Program Funding

Drought Indicator Analysis - Statewide Regions

Drought indicators are compiled for the state drought management regions, and for smaller geographic entities at a localities request.

Click on one of the drought regions in the map to see detailed drought analysis data:

Email: [William Norris](#)

What's New?

State Drought Evaluation Region Drought Indicator Maps: Drought maps summarizing precipitation, streamflow, groundwater, and the Palmer drought index for 13 drought evaluation regions can be found at [here](#).

Shenandoah Valley Drought Indicator Maps: Drought maps summarizing precipitation, streamflow, groundwater, and the Palmer drought index for 18 sub-watersheds in the Shenandoah River basin can be found at [here](#).

Normal

Watch

Warning

Emergency

No Data

GW

Prop

PDI

Flow

Region	GW	Prop	PDI	Flow
Shenandoah Valley	Normal	Normal	Normal	Normal
Roanoke	Normal	Normal	Normal	Normal
Richmond	Normal	Normal	Normal	Normal
Frederick	Normal	Normal	Normal	Normal
Washington	Normal	Normal	Normal	Normal
Stafford	Normal	Normal	Normal	Normal
Warrenton	Normal	Normal	Normal	Normal
Clatsop	Normal	Normal	Normal	Normal
Washouli	Normal	Normal	Normal	Normal
Clark	Normal	Normal	Normal	Normal
Boone	Normal	Normal	Normal	Normal
Lincoln	Normal	Normal	Normal	Normal
Wheeler	Normal	Normal	Normal	Normal
Malheur	Normal	Normal	Normal	Normal
Harney	Normal	Normal	Normal	Normal
Coos	Normal	Normal	Normal	Normal
Curry	Normal	Normal	Normal	Normal
Deschutes	Normal	Normal	Normal	Normal
Jefferson	Normal	Normal	Normal	Normal
Clackamas	Normal	Normal	Normal	Normal
Washington	Normal	Normal	Normal	Normal
Clark	Normal	Normal	Normal	Normal
Boone	Normal	Normal	Normal	Normal
Lincoln	Normal	Normal	Normal	Normal
Wheeler	Normal	Normal	Normal	Normal
Malheur	Normal	Normal	Normal	Normal
Harney	Normal	Normal	Normal	Normal
Coos	Normal	Normal	Normal	Normal
Curry	Normal	Normal	Normal	Normal
Deschutes	Normal	Normal	Normal	Normal
Jefferson	Normal	Normal	Normal	Normal
Clackamas	Normal	Normal	Normal	Normal

start

Inbox - Microsoft...

RE: 4/19: Health...

RE: Drought map...

RE: bread - Mess...

Microsoft PowerP...

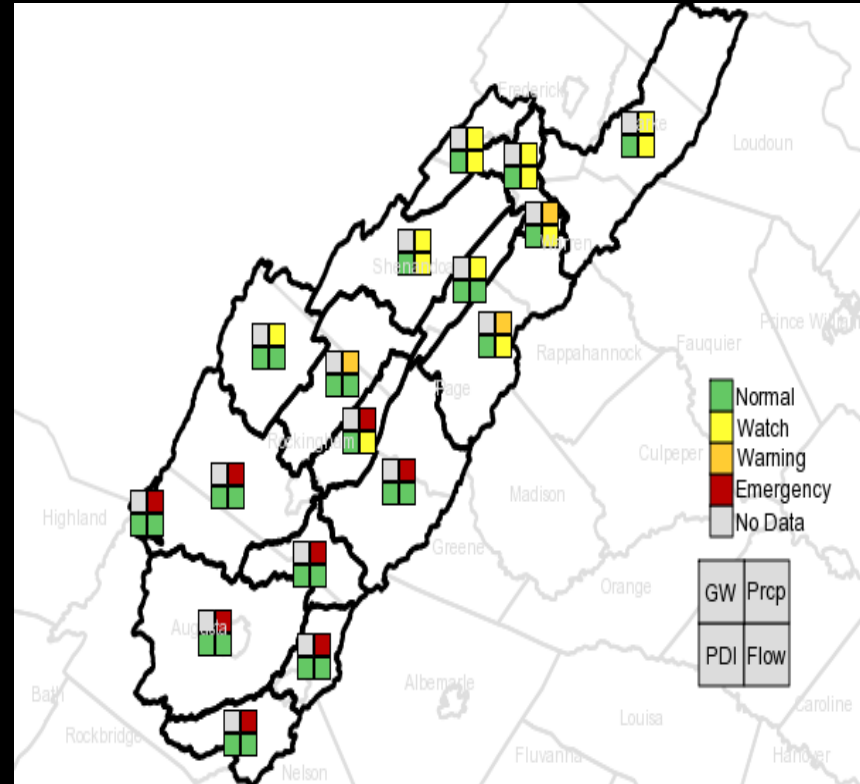
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DEQ Drought Pilot

- Based on Virginia Drought Assessment and Response Plan
- Includes deviation from normal values for:
 - Precipitation
 - Streamflow
 - Ground water level (where available)
 - Reservoir level (where available)
- Color coded graphs and tables are updated daily with near real-time data
- Charts and data are summarized by GIS shape files, based on watershed, sub-watershed, political, or planning boundaries as desired



Drought Management Summary

- Local and regional drought response & contingency plans are living documents that promote localized, proactive drought management
- State resources and tools are available to help you with this process
- Public outreach is essential to effective management of our water resources during these critical periods



Questions

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<http://www.deq.virginia.gov/watersupplyplanning/homepage.html>